Village of Barrington
2000 Water Quality Report

Who should read this report?

Do you drink water? If your answer is "yes" read on.

The United States Environmental Protection Agency (USEPA) requires all Communities to provide to their consumers a Consumer Confidence Report on the quality of their systems drinking water. This report summarizes the quality of water that we provided during the last year. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies.

The Village of Barrington water supply serves fewer than 10,000 persons and had no water quality or monitoring violations during 2000. Because of this, the Village received a Method of Delivery (MOD) waiver. The Village will not be required to provide a report to all water consumers as last year. This year's report will be available upon request.

If you have any questions about this report or concerning your water system please contact: David W. Schmidt, Superintendent of Utility Operations **847/304-3358** or John Heinz, Director of Public Works **847/381-7903**.

Regulations

In order to ensure that tap water is safe to drink, USEPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

In addition to the informational section of the Water Quality Report, we have included for your review several tables. The tables will give you a better picture of the contaminants that were detected in your water and the contaminants that were tested for, but not detected.

Sources of drinking water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it can dissolve naturally occurring minerals and radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Possible contaminants:

Inorganic contaminants,
such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining or farming;

Organisms, pesticides, and herbicides,
which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses;

Organic chemical contaminant,
including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems;

Radioactive contaminants,
which may be naturally occurring or be the result of oil and gas production and mining activities;

Microbial contaminants,
such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Barrington's H_2O History

Barrington's municipal water supply system began in 1898 with the drilling of well No. 1 southwest of the intersection of Hough and Station Streets. As the Village grew, additional wells were drilled to satisfy the increase in water demand. Well No. 2, drilled in 1929, is located in the Station St. Pumping Station. Both of these are cased through the glacial drift and have open boreholes in the upper part of the bedrock. Wells No. 3 and No. 4, drilled in 1964 and 1973 respectively, are located along Bryant Avenue north of Northwest Highway. Both of these secure groundwater from sand and gravel in the glacial drift above the bedrock.

Safe Drinking Water Hotline

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

We are advised by the IEPA that some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Water Facts

- Due to favorable monitoring history, aquifer characteristics, and inventory of potential sources of contamination, our water supply was issued a vulnerability waiver renewal. No monitoring for Volatile Organic Chemicals (VOCs) and Synthetic Organic Chemicals (SOCs) is required between January 1,1999, and December 31, 2001,nor was it required for the three years prior.
- For the eighth consecutive year, the Village of Barrington has been recognized for achieving the highest standard of compliance for fluoride addition in accordance with the Fluoridation Act.
- More than 6,000 separate tests were performed on water samples from our system.
- Population served - 9,538.
- Metered customers - 4,027.
- 79 miles of watermain and approx. 832 Fire hydrants.
- Water production - 1.572 (ave. million gallons/day)

2000 Water Quality Data

Contaminant (units)	Typical Source of Contaminant	MCLG	MCL	Level Found	Range of Detection	Violation	Date of Sample
MICROBIAL CONTAMINANTS							
TOTAL COLIFORM BACTERIA (# pos/mo)	Naturally present in environ.	0	>1	1		0	
RADIOACTIVE CONTAMINANTS							
ALPHA EMITTERS (pCi/l)	Erosion of natural deposits	0	15	3.000	nd-3.000	0	12/14/98
INORGANIC CONTAMINANTS							
BARIUM (ppm)	Discharge of drilling wastes;discharge from metal refineries;erosion of natural deposits	2	2	0.093	0.061-0.093	0	4/28/98
COPPER (ppm)	Corrosion of household plumbing systems; erosion of natural deposits;leaching from wood preservatives	1.3	AL=1.3	1.300	3 exceeding AL	0	
LEAD (ppb)	Corrosion of household plumbing systems; erosion of natural deposits	0	AL=15	53	11 exceeding AL	AL	
NITRATE (as Nitrogen) (ppm)	Runoff from fertilizer use;Leaching from septic tanks,sewage;Erosion of natural deposits.	10	10	0.022	0.011-0.022	0	
UNREGULATED CONTAMINANTS							
SULFATE (ppm)	Erosion of naturally occurring deposits	n/a	n/a	87.750	56.500-119.000	0	4/28/98
STATE-REGULATED CONTAMINANTS							
FLUORIDE (ppm)	Erosion of natural deposits; water additive that promotes strong teeth;discharge from fertilizer and aluminum factories	n/a	n/a	1.020	1.020-1.020	0	
IRON (ppb)	Erosion of naturally occurring deposits	n/a	1000	1542.5	1450.0-1640.0	0	
MANGANESE (ppb)	Erosion of naturally occurring deposits	n/a	150	15.0	nd-15.000	0	4/28/98
SODIUM (ppm)	Erosion of naturally occurring deposits;used as water softener	n/a	n/a	35.9	27.4-35.9	0	4/28/98
ZINC (ppb)	Naturally occurring;discharge from metal facilities	n/a	5000	118.0	nd-118.00	0	4/28/98

Key:

Definitions of Terms

Maximum Contaminant Level Goal - MCLG:
The level of a contaminant in drinking water below which there is not known or expected risk to health.MCLGs allow for a margin of safety.

Maximum Contaminant Level - MCL:
The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible, using the best available treatment technology.

Level Found:
Represents an average of sample result data collected during the CCR calendar year. In some cases,it may represent a single sample if only one sample was collected.

Range of Detection:
Represents a range of individual sample results,from lowest to highest that were collected during the CCR calendar year.

Action Level - AL:
The concentration of a contaminant,which,if exceeded,triggers treatment or other requirements that a water system must follow.

Treatment Technique - TT :
A required process intended to reduce the level of a contaminant in drinking water.

Abbreviations

nd – not detectable at testing limits
n/a – not applicable
ppm – parts per million or milligrams per liter
ppb – parts per billion or micrograms per liter
pCi/l— picocuries per liter, used to measure radioactivity
 # pos/mo— number of positive samples per month

Notes

In most cases,the **"Level Found"** column represents an average of sample result data collected during the Consumer Confidence Report (CCR) calendar year.

The **"Range of Detections"** column represents a range of individual sample results,from lowest to highest,that were collected during the CCR calendar year.

If a date appears in the **"Date of Sample"** column,the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the CCR calendar year.

Manganese

This contaminant is not currently regulated by the USEPA. However, the state has set an MCL for this contaminant for supplies serving a population of 1,000 or more.

Zinc

This contaminant is not currently regulated by the USEPA. However, the state has set an MCL for this contaminant and therefore monitoring is required.

All residents are notified yearly of their water testsults

About the Data

The Maximum Contaminant Level (MCL) for lead is 15 parts per billion (ppb) and 1.3 parts per million (ppm) for copper. When lead or copper exceed their Action levels (AL), some form of treatment is required, which the water system must follow. The V.O.B. adds polyphosphates to the potable water system. This is to help prevent lead in your home's plumbing from leaching into the water. In the Water Quality Data chart, the number 53 listed in the "Level Found" column for lead under "Inorganic Contaminants" represents the 90th % level found in (ppb) for lead. The number of homes the IEPA requires the Village to test is 40. Of the 40 homes tested, 11 were found to exceed the AL of 15 ppb, while 3 were found to exceed the AL 1.3 ppm, as shown in the "Range of Detection" column.

Lead

Infants and young children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. It is possible that lead levels at your home may be higher than at other homes in your community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, have your water tested. Also, flush your tap for 30 seconds to two minutes before using tap water. Additional information is available from the USEPA's Safe Drinking Water Hotline at 1-800-426-4791.

Copper

Copper is an essential nutrient,but some people who drink water-containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water-containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Iron

This contaminant is not currently regulated by the USEPA. However, the state has set an MCL for this contaminant for supplies serving a population of 1,000 or more. Iron is not a health risk, but it does create aesthetic problems, such as giving water a metallic taste and causing stains on clothes.

Sodium

There is not a state or federal MCL for Sodium. Monitoring is required to provide information to consumers and health officials that are concerned about intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about the level of sodium in the water.

2000 NON-DETECTED Contaminants

The following table includes contaminants monitored for but **not detected (nd)** in the most recent Village samples. The Village is not required to report this information;however, monitoring has been done and has indicated that these contaminants were not present in the water supply. *(For "Date of Sample"note, see previous page.)*

Contaminant (units)	Typical Source of Contaminant	MCLG	MCL	Level Found	Date of Sample
MICROBIAL CONTAMINANTS					
Fecal Coliform and E.Coli (# pos/mo)	Human and animal fecal waste	0	>1	nd	
RADIOACTIVE CONTAMINANTS					
Beta/Photon Emitters (pCi/l)	Decay of natural and man-made deposits	0	50	nd	12/14/98
INORGANIC CONTAMINANTS					
Antimony (ppb)	Discharge from petroleum refineries;fire retardants,ceramics, electronics;solder	6	6	nd	4/28/98
Arsenic (ppb)	Erosion of natural deposits;runoff from orchards;runoff from glass and electronics production wastes	n/a	50	nd	4/28/98
Beryllium (ppb)	Discharge from metal refineries and coal-burning factories;discharge from electrical,aerospace, and defense industries	4	4	nd	4/28/98
Cadmium (ppb)	Corrosion of galvanized pipes;erosion of natural deposits;discharge from metal refineries;runoff from waste batteries and paints	5	5	nd	4/28/98
Chromium (ppb)	Discharge from steel and pulp mills;erosion of natural deposits	100	100	nd	4/28/98
Cyanide (ppb)	Discharge from steel/metal factories;discharge from plastic and fertilizer factories	200	200	nd	4/28/98
Mercury (inorganic) (ppb)	Erosion of natural deposits;discharge from refineries and factories; runoff from landfills;runoff from cropland	2	2	nd	4/28/98
Nitrite (as Nitrogen) (ppm)	Runoff from fertilizer use;leaching from septic tanks,sewage;erosion of natural deposits	1	1	nd	
Selenium (ppb)	Discharge from petroleum and metal refineries;erosion of natural deposits;discharge from mines	50	50	nd	4/28/98
Thallium (ppb)	Leaching from ore-processing sites;discharge from electronics,glass, and drug factories	0.5	0.5	nd	4/28/98
ADDITIONAL CONTAMINANTS					
Nickel (ppb)	Erosion from naturally occuring deposits;dischrge from nickel plating, storage batteries,magnets,electrodes and spark plugs	n/a	n/a	nd	4/28/1998
Silica,total as S102 (ppm)	Discharge from electronics plants,manufacture of transistors and silicon diodes;Used for making alloys.	n/a	n/a	nd	11/10/98

Some projects that have been undertaken by the Village during the past year include the rehabilitation of Well #1 adjacent to Village Hall. The Well (which was drilled in 1898) was pulled, cleaned and rehabilitated. This has increased the capacity of this well by over 40%. The erection of a 400,000 gallon elevated storage tank was completed in February of 2000, near Dundee and Barrington Roads. This will increase the capacity and maintain system pressure for the residents served in the southern section of the Village, south of Cornell Ave. The construction of a new 600,000 gallon reservoir (see photo) and chemical building addition for the Station Street Pumphouse was completed in December 2000. The reservoir was nominated and won the American Public Works Association (APWA) Project of the Year Award for projects under $2 million. The additional capacity of the new reservoir will allow the Village to meet the needs of the community now and in the future. An Iron Filtration System is scheduled to be in operation the Fall of 2001. The new iron removal system will reduce the iron concentration in the potable water resulting in the production of higher quality water.

Village of Barrington - Water Reservoir